The Conservation Security Program: Insight and Recommendations Based on the New England Experience

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The Bottom Line: CSP Works

Let me jump to my overarching conclusion: New England has and will continue to benefit from the Conservation Security Program. Green payments are the future of agricultural support and the CSP has succeeded in rewarding farmers for stewardship of working lands.

Many of the CSP challenges identified in our study, which I will discuss momentarily, are a function of insufficient funding that has lead to rules that deviate from the original statute and contorted bureaucratic efforts to distribute limited resources. As the Committee shapes the next farm bill, I urge you to be optimistic about the future of the CSP, to undertake a renewed effort to strengthen this innovative program, and to provide it full funding.

Our Study: A Window onto New England

Does CSP work for farmers in New England? That was the question put to us by American Farmland Trust (AFT) in 2005. With technical and financial support from AFT, and under my direction, four students devoted themselves to constructing revealing CSP case studies of farms in New England. Together we drew upon these cases to construct a picture of what works for our region and identify how CSP may be fine-tuned to better meet farmer needs. My testimony today is largely derived from our final report, released this spring: The Conservation Security Program: Rewards and Challenges for New England Farmers. I am pleased to introduce you to my coauthors and Master of Science degree recepients Britt Lundgren, Meaghan Donovan, and Christine Lee who were able to join me today. Missing teammate, Jody Biergiel, now working for California Certified Organic Farmers, is cheering us on from afar as is our close collaborator and AFT New England Director Cris Coffin.

Our CSP study is built on case studies of farms in Connecticut, Massachusetts, Rhode Island,

Maine, New Hampshire, and Vermont. Because farmers in New England were unable to sign up for CSP until 2005 and then, only 54 contracts were approved, we sought to make our sample more representative of New England farm types and crops by also working with farmers who had not yet applied to CSP but whose conservation efforts made them likely future CSP participants. As a result, our analysis is based on three farms with 2005 CSP contracts, and 5 farms with hypothetical CSP contracts. Farms studied ranged from 8 to 1,800 acres, and production types included dairy, potato, cranberry, apple, beef, and conventional and organic vegetables. Farmers with contracts were interviewed about the details of their contract and their experience with the sign-up process. Those without contracts participated in a mock sign-up process with the assistance of NRCS staff.

Show Me the Money: Real and Hypothetical Payments

Total CSP contract payments for farms in our study ranged widely, from a high of $152,308 over ten years for a cranberry farm to a low of $385 over ten years for an organic goat/chicken/vegetable farm. The per acre payment a farm can expect to receive appears to be affected by the number of conservation practices being done on a farm, whether the farm uses irrigation, and the size of the farm. Although the payment per acre may be higher for some smaller farms than it is for some larger farms, larger farms can expect to receive a higher payment over the life of the contract. In comparing the farms based on a payment per acre per year basis, a Vermont dairy and a Connecticut organic goat/chicken/vegetable farm received the lowest payments of $8/acre/year while a Maine apple orchard received the highest payment, $45/acre/year. Figure 1 illustrates the payments per acre per year for each case study.

Figure 1

The use of irrigation greatly increases the payment per acre a farm can expect to receive. Stewardship payment rates are based on the average regional rental rate for farmland, and rental rates are significantly higher for irrigated farmland. In this study, the farms that received the highest per acre payment were the Massachusetts cranberry and Maine apple farm. Both of these farms use irrigation on the entire eligible portion of the farm.

Enhancement payments reflect the number of conservation activities in use on a farm and make up the bulk of the total CSP benefit; in our study enhancement payments accounted for a low of 48% of the total contract payment to over 80 percent. At the time of our study, 9 official categories of enhancement practice payments were available; a tenth category, public relations (e.g., farm noise reduction) was anticipated so we included it in our analysis. Figure 2 on the following page shows the distribution of enhancement payments by category for the first year of the contract. The pest management and nutrient management categories were the largest, each constituting slightly over a third of all enhancement payments. Soil and water management were in the range of 10-11% with all remaining categories less than 3% each.

The detailed case studies and 100+ page analysis can be found at the AFT website: www.farmland.org/programs/states/documents/NECSP.pdf. Additionally, I recommend our report be read in conjunction with a study by Heller et al: Assessing and Developing the

Opportunities for Green Payments Programs for Maryland's Farmers. Published in 2005, this report similarly uses case study methodology to analyze the effectiveness of CSP in the Maryland area and the conclusions drawn are consistent with New England findings: http://www.agroecol.umd.edu/files/M.%20Heller%20Green%20Payments.pdf.

Figure 2

Based on our study, New England farmers--and likely farmers nationwide--would benefit from acting on seven opportunities to strengthen CSP, a program that should remain central in our national conservation strategy.

Opportunity #1:
Reward and Motivate Farmers by Funding CSP as Intended

CSP was created as an entitlement program, but inadequate funding has forced NRCS to severly limit CSP contracts. The Congressional Budget Office, for example, estimated that $282 million would be needed to implement CSP in FY05, yet Congress allocated just $202 million. The $80 million shortfall was addressed by limiting eligibility to a small number of watersheds, instituting various payment caps, and adjusting eligibility criteria: in short, eliminating many of the farms originally envisioned as core participants.

New England farms were not eligible for CSP until 2005 and even then, only those that fell within the 13 NRCS-designated watersheds were eligible for the 2005 sign up period. As a result, New England received just 0.4% of contracts nationwide--a total of $234,068 in CSP payments or 0.15% of funds distributed by USDA in that fiscal year. Certainly, as a region we hoped to do better.

CSP was designed to "reward the best and motivate the rest." While eligibility requirements draw a bold line between "the best" and "the rest" the reality is that it is oftentimes difficult to make a clear distinction. Certainly CSP participants are using advanced conservation practices. But some farms are deemed ineligible despite significant conservation practices. In some cases, this is due to program quirks. The farms in this study were chosen because they are regarded as conservation-minded by NRCS staff and American Farmland Trust and we expected them all to be eligible. This was not the case. The Massachusetts dairy/beef/ vegetable farm could not enroll their organically managed vegetable acres, for example, because of a slightly low Soil Conditioning Index (SCI) score and despite the fact that the farm is already involved in EQIP, the Grassland Protection Program, Agricultural Management Assistance, and the Wildlife Habitat Incentives Program.

In all cases, CSP conservation and environmental standards should be maintained and possibly strengthened. But CSP could be made more farmer-friendly and consistent with the NRCS tradition of conservation planning if farmers were allowed to enroll in CSP before meeting all the eligibility requirements a priori and instead were required to meet the eligibility standards within the early years of the contract, as called for in the statute. This would allow greater attention to the "motivational" aspect of CSP and ultimately achieve higher environmental

benefits from increased participation.

More often, farms cannot participate in CSP or receive payments for certain acres or practices solely because of budget constraints. The institution of enrollment categories in the 2005 sign up notice eliminated farmers who are doing less conservation work but could be motivated into doing more if allowed into the program. The declining variable enhancement rate and diminished payments caused our Connecticut dairy farmer to conclude that the CSP payments were unlikely high enough to cause him to make further changes to his conservation practices. The Maine potato grower said that he would consider changing his crop rotation if it would increase his SCI scores and allow him to enroll more acres in CSP, but only if he qualified for Tier III so that he would be adequately compensated.

Congress has yet to allocate funds for FY 07. In the last fiscal year, $259 million was allocated to CSP, an amount lower than President's budget request which caused NRCS to cut in half the number of anticipated new watersheds from the sign up (down to 60). The FY 07 request in the President's budget would allow for only 51 new watersheds in CSP. The Congress should maintain and improve environmental standards for CSP while at the same time, remove the multi-year budget caps put in place by the budget reconciliation bill and restore funding that has been cut via riders in the annual appropriations bills.

Opportunity #2:
Remove Caps to Reduce Complexity and Improve Transparency

Simultaneous expansion of the program, budget cuts, and limited technical assistance has forced NRCS to craft some cumbersome and confusing rules. Nearly all of the farmers in this study cited the complexity of CSP as their primary complaint.

For example, enrollment categories have been created because funds are not available to pay for all eligible contracts. CSP applicants are placed in one of 5 Enrollment Categories (labeled A - E). Category A is funded first in all three Tiers, followed by category B, etc. If there is not enough money to fund a category completely throughout all three tiers, then contracts are ranked in 12 subcategories. Enrollment categories are further broken down by stewardship payment type: pastureland, cropland, rangeland, and irrigated cropland. In 2005, the NRCS was able to fund contracts in enrollment categories A, B, and C-1, leaving the rest of category C, and all of categories D and E, without funding. By these standards, the Maine potato farm and the Connecticut dairy in our study would not receive any funds.

NRCS has also chosen to cap the stewardship, new practice, and enhancement payments even though the statute only calls for the total payments to be capped for each Tier. Stewardship payments are reduced overall by two reduction factors, and then capped at different levels for each tier. The enhancement payments are paid at a variable rate that reduces the overall payment size by 60%, and are also capped at different levels for each tier. Additionally, the new practice payments are capped at $10,000 for all tiers. None of the payments (actual or hypothetical) in this study reached overall Tier caps.

The complexity is so great, that program administrators and field staff get confused. In our study we found discrepancies in the calculations made to determine payments for the 2005

contracts that we reviewed. One farm was given a Tier II contract even though their entire farm was not eligible for CSP. In another case, NRCS calculated enhancement payments in a contract using a multiplier that staff referred to as a "fudge factor". Enhancement practices that would be added by this farm in the second year of its contract were also calculated in at the variable enhancement rate, instead of at 100% as required by the rule.

All of these program complexities leave farmers unable to predict whether they will receive a CSP contract and if so, the extent of potential payments. This is a major deterrent to participation. NRCS should be instructed to remove payment caps on stewardship, enhancement, and new practice payments, and eliminate the variable enhancement payment rate. This will reduce program complexity--a major benefit for farmers and NRCS staff alike--and increase transparency for applicants.

Opportunity #3:
Increase Participation by Expanding Technical Assistance

The complexity of CSP might be less daunting to farmers if more technical assistance was available. As stated in the Interim Final Rule, "technical assistance may include, but is not limited to: assisting applicants during sign-up, processing and assessing applications, assisting the participant in developing the conservation stewardship plan; conservation practice survey, layout, design, installation, and certification; information, education, and training for producers; and quality assurance activities." Despite these wide-ranging responsibilities, language from the 2002 Farm Bill limits spending on technical assistance to 15 percent of the funds expended for the program overall.

The CSP Self Assessment workbook is an effective tool and helps farmers identify possible conservation needs on their farm. The Connecticut organic goat/chicken/ vegetable farmer, for example, said that in the process of completing the workbook, her NRCS agent convinced her to abandon plans to allow her goats to drink from a stream on her property. Yet it is important to understand that all farmers who participated in this study required at least some assistance completing the so-called "Self" Assessment.

Experience working with NRCS is not a requirement for CSP enrollment, but in reality, lack of prior relationship with the agency puts farmers at significant disadvantage. Many of the farms interviewed for this study had a long history of involvement with NRCS, and thus much of the information needed to determine the farm's eligibility (data needed to determine SCI and WQ Tool scores, the delineation of the farms fields, etc.) was already in NRCS files. This makes it easier for NRCS to complete their portion of the CSP application and determine eligibility. Indeed, several NRCS employees admitted a preference for farms with a history with the agency because the money allotted to them for CSP is not enough to cover the costs of the labor required to survey fields and calculate the different indices required for the CSP application.

Opportunity #4:
Recognize the Limits of the Soil Conditioning Index

CSP uses quantitative indices for determining farm eligibility and, in some cases, for determing

enhancement payment rates. Quantitative measures are attractive in that they provide a science-based, time-efficient approach and can set a "baseline" standard for participation. However, the northeastern region contains many diverse farm types and practices, rendering it nearly impossible to apply a "one-size-fits-all" approach to assessment. Each farm type has different strengths and weaknesses in terms of conservation, and problems of imprecision often arise when utilizing rigid, quantitative measures alone. To work well, quantitative measures must be balanced with more individualized, qualitative measures to assess eligibility.

The SCI is a quantitative measure in which a negative value predicts declining levels of soil organic matter. Land must have a positive SCI score in order to be eligible for CSP. The availability of a standardized, easy-to-use computer program must be popular to an already overburdened NRCS staff. However, one NRCS staff person noted that RUSLE2 (which is used to calculate the SCI score) is constantly being updated, making it difficult for staff members to stay abreast of changes. I would also like to emphasize that the SCI is not a complete soil quality indicator. It assesses only soil organic matter, which is a primary indicator of soil quality and carbon sequestration. Other important measures of soil quality not reflected in the SCI include the quality of organic matter, salinity, surface structure, nutrient management, soil biota, contaminants, runoff, and compaction.

Despite the appeal of a quantitative measure, bias and inconsistencies in judgment are still possible because it is easy for different NRCS agents to calculate different SCI scores for the same field. One NRCS agent commented, "You could send 25 NRCS guys out to a field and get 25 different SCI scores." When a field's SCI score is close to 0, small variations in field length or slope estimates used in calculations can produce a SCI score that is slightly positive or negative. It should be noted that the SCI was developed in Texas and was not subjected to rigorous analysis and recalibration in other parts of the country before it was put into use for CSP.

NRCS field staff are encouraged to group fields with similar characteristics (i.e. soil type, slope) together when calculating SCI scores for a farm. This is an effective strategy in the Midwest, where fields are large, slope variation is less, and soil types are more uniform. In New England, however, a 1000 acre farm could consist of over 100 scattered fields. Each of these fields is likely to have a different slope and many will have a different soil type. Grouping becomes difficult and highly inaccurate. The workload for calculating the SCI score for a large New England farm can become staggering. It almost invariably exceeds the technical assistance hours allotted for NRCS staff to implement this program.

The potato farm case study offers an example of this imprecision. Although the farmer uses the most up-to-date conservation technology, his fields are in continuous corn-potato rotation, and no time is allowed for fields to lie fallow. As a result, his SCI score was slightly negative on some fields. On other fields, the SCI score was slightly positive, but not high enough to receive an enhancement payment. Even though the farmer applies the same conservation practices on all fields, only some fields are eligible. This is largely due to factors beyond the farmer's control, such as small differences in slope and soil type, not because of any difference in conservation efforts.

The Massachusetts vegetable and fruit farm suggests other difficulties with SCI. SCI scores are

positive for permanent and perennial crops, such as orchard crops and berries, in which tillage is rarely practiced. However, SCI scores are lower on annual vegetable crops, even those grown organically. According to the farmer, the area's premium land prices prohibit him from leaving fields fallow. In addition, the short growing season prevents him from using a no-till system (which typically produces a positive SCI score) because the soil doesn't warm up quickly enough for an early spring planting without tillage, and a delayed planting would result in lost markets. However, he is dedicated to using annual cover crops and is doubling the amount of acreage in organic production this year. The lower SCI scores for these fields do not reflect that this farmer uses as many or more conservation practices on his vegetable acres than he uses on the orchard and berry crops.

The Massachusetts cranberry farm case study provides a unique regional example of SCI challenges. The SCI was not designed to evaluate soil in cranberry bogs. Cranberry bogs are never tilled, and their soil consists of alternating layers of sand and decomposing organic matter. The bogs spend a significant portion of the year completely flooded. NRCS determined for this case study that cranberry bogs will typically earn a high SCI of approximately 0.6 due to the soil type, the permanence of the crop and the lack of any need for tillage. Thus, a cranberry farm is much more likely to be eligible to participate in CSP and receive enhancement payments for a higher SCI score, even though the farmer may not be putting nearly as much effort into soil conservation as other farm types.

Opportunity #5:
Support Small Farms by Establishing a Base Payment Minimum

CSP is open to any farm type in an eligible watershed, yet interviews show that different types of farms have different experiences and levels of success in enrolling in the program. Small farms receive very low payments. In one case, a farm will receive only $385 over 10 years, starting with a payment of $88 in year one and ending with payments of $17 in years 7-10 (the decline due to the variable enhancement payment process added administratively by NRCS). This payment is hardly worth the hours that both the farmer and the NRCS spent on the application.

CSP payments are calculated per acre. This automatically means that a smaller farm will receive smaller payments for the same practices that a larger farm is doing. While this may seem fair initially, as larger farms incur greater expenses, it can reduce the incentive for small farms to apply. The team analyzing CSP experiences in Maryland found similar disincentives for small farm entry. Heller et al suggest fostering the participation of small farms in CSP by establishing a payment floor for the stewardship payment of $500 per year for farms with less than 50 acres and $1,000 for farms greater in size. Such a payment floor would make it more likely that even small farms in areas with low rental rates would see value in CSP participation.

Opportunity #6:
Create a Universal Application to Streamline the Bureaucracy

During the course of this study, several farmers observed that they could receive higher payments for certain activities, such as setting aside land or cost sharing for the installation of a

new watering facility, through NRCS programs other than CSP.

The overlap between NRCS programs causes confusion for farmers and creates extra work for NRCS employees, who must offer the same assistance through several programs, each requiring a separate application. In many cases, NRCS programs are wonderfully complementary. The Vermont dairy, Connecticut dairy, and Massachusetts cranberry farm had all participated in EQIP prior to their participation (or hypothetical participation) in the CSP. In each case, the completion of the EQIP contract improved conservation efforts on the farm, and likely contributed to the farm's eligibility for a CSP contract.

But farmers are not allowed to receive payments for the same activity through two NRCS programs, so they must choose between them. The Maine potato farmer pointed out that he would receive more money per acre for the grassed waterways in his fields through the CRP than he would through the enhancement payments available through CSP. The same is true for riparian buffers, which would also receive a higher payment through the CRP than they would through the enhancement payments offered by CSP. Farmers could make the differences between the two programs work to their benefit by enrolling buffers, grassed waterways, and contour grass strips into the CRP, and then enrolling the rest of the farm into CSP.

A way to streamline the programs offered by NRCS and assist farmers in figuring out how best to apply the menu of programs to their needs, would be to develop a universal application for all NRCS programs. Several farmers and NRCS employees mentioned to us that they would like to see this, a concept that one farmer referred to as "one stop shopping". A universal application for all NRCS programs would simplify the process of providing assistance to farmers for environmental improvements and help NRCS staff identify which programs could be used to help each farmer. The NRCS could conduct a benchmark inventory of a farm at the beginning of the process, similar to the one currently conducted for CSP, and then use the results to determine which programs farmers could participate in.

Opportunity #7:
Enhance Conservation by Welcoming New Practices

We found several instances of NRCS field offices being instructed not to offer new practice payments. This is understood to be one solution to budget cuts. However, offering the payments in the literature but not in reality adds to farmer confusion.

Not surprisingly, none of the farmers in our study with 2005 CSP contracts signed up for any new practice payments. Practice payments must be rethought and recalculated if they are to be a meaningful part of CSP. Clearly EQIP offers a better cost share rate and more money for farmers. Despite identical farm bill statutory language, the CSP offers farmers a 50% cost share rate (65% for beginning or limited resource farmers) on a range of new practices, while EQIP offers farmers up to a 75% cost share rate (up to 90% for beginning or limited resource farmers). The CSP limits New Practice Payments for farmers to $10,000 per contract, while EQIP limits farmers to $450,000 in payments for the duration of the term of the Farm Bill.

Opportunity #8:
Lengthen the Sign-Up Period To Avoid Conflict with Farm Responsibilities

Farmers involved in this study frequently complained that the application process was poorly timed, too short, and conflicted with the planting season. Secretary Johanns partially addressed this criticism in his announcement of the 2006 sign up, held February 13 to March 31: "This year, we're providing applicants the ability to sign up prior to most planting decisions to encourage more conservation leaders." Yet the sign up was open for only a short window of time during peak spring planning months. A longer sign up period would eliminate this problem, and give the NRCS more time to reach out to new applicants and help them complete complicated applications.

Conclusion

I know my friends in the room are wondering if I could complete my testimony without specific reference to organic production. Of course not! I have been asked whether organic vegetable farmers, which are often thought of as conservation oriented, may be less likely to be eligible for CSP than conventional farms due to the SCI score requirement. In some cases, the answer is yes. Since organic farmers cannot use herbicides they rely on cultivation for weed control. This extra cultivation has a negative effect in the SCI score and potentially disqualifies organic land or lowers the enhancement payments. On the other hand, organic farms typically include production practices such as planting cover crops and incorporating compost or manure into their fields, all of which may help raise their SCI score to counteract the effect of the extra tillage. So, it is a mixed story but one which many organic advocates are following as CSP and organic should go hand in hand. Indeed, the national list of enhancement practice and new practice payments includes payments for organic production (an enhancement payment) or transitioning to organic production (a new practice payment). The only New England state to offer such payments for organic production is Vermont, which offered a new practice payment of $25/acre for transitioning to organic production.

Opportunity to increase CSP effectiveness can be obtained through greater funding allocations, administrative adjustments, and statutory change. Those of us at Tufts University and American Farmland Trust stand ready to assist the Committee in further analysis of this critical green payment program--the future of conservation in America.

While maintaining their confidentiality, I would like to conclude by acknowledging the farmers whose operations served as case studies for our report. They want this program to work, and to ensure that it does, they provided full access to their farms, thoughtful insights, and hours of time with our research team and NRCS staff. I only hope our work is just credit to their stewardship.

Thank you for the opportunity to share the New England experience